Weekly Influenza Surveillance Report

Maryland Department of Health and Mental Hygiene | Infectious Disease and Environmental Health Administration
Office of Infectious Disease Epidemiology and Outbreak Response

SYNOPSIS

During week 41 in Maryland, two hospitalized cases of influenza-like illness (ILI) were reported. Clinical laboratories reported one rapid test positive for influenza type A. No outbreaks of influenza or ILI in institutional settings were reported. Given this information, influenza activity in Maryland for week 41 was "SPORADIC", the same level as last week, with small numbers of laboratory-confirmed influenza and no increase in the proportion of visits to sentinel providers due to ILI.

Starting with the current influenza reporting season, CDC is reporting one more indicator of flu activity. Using data from ILINet sentinel providers, CDC is reporting the level of "ILI activity" by state. According to CDC, "activity levels are based on the percent of outpatient visits in a state due to ILI and are compared to the average percent of ILI visits that occur during spring and fall weeks with little or no influenza virus circulation." In short, this indicator gives a glimpse at how much ILI is being seen in the different states.

INFLUENZA-LIKE ILLNESS SURVEILLANCE (ILINet)

A total of six sentinel providers reported 57 visits (3.1% of all visits) to their practices for ILI during week 41. This is below the state baseline of 5.6%.

This same week last year, when influenza activity peaked late in October of 2009, the proportion of visits for ILI was 5.7%. In October of 2008, the proportion of visits for ILI was near 0%.

For more information on the US Outpatient Influenza-like Illness Reporting Network (ILINet), please visit our website: http://dhmh.maryland.gov/fluwatch and click on "ILINet Sentinel Providers".

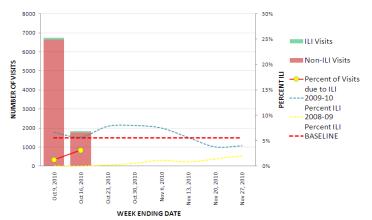


Figure 1. Number of visits and proportion of visits for ILI to ILINet sentinel providers, 2010-11 influenza season

CLINICAL LAB REPORTS OF RAPID FLU TESTING

During week 41, 17 clinical laboratories reported 1 (0.5%) of 192 rapid influenza tests as for type A influenza. This proportion of positive tests was significantly lower than the proportion reported at this time last year, which was 22.3%, when influenza activity was about to peak for the 2009-10 season.

Early in the season, when influenza is not very prevalent (established) in the community, rapid influenza tests tend to be less accurate than PCR tests or viral culture. So these results should be taken with that caveat.

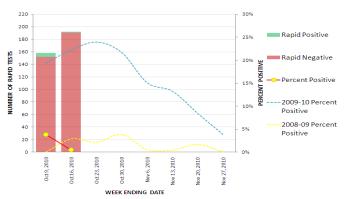


Figure 2. Number and result of rapid tests reported by clinical laboratories, 2010-11 influenza season.

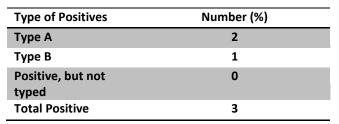


Table 1. Number of positive rapid influenza tests, by type, reported by collaborating clinical laboratories, 2010-11 season

GET VACCINATED!

Go to

http://dhmh.maryland.gov/swineflu/getVaccinated.html and find your local health department for more information.

MARYLAND RESIDENT INFLUENZA TRACKING SURVEY (MRITS)

During week 41, a total of 521 (33.6% of total) participants in the MRITS responded to the weekly survey. Of those who responded, 10 (1.9%) reported flu-like illness. This is a proportion lower to this same week last season, when about 11% of respondents then reported flu-like illness.

We are always looking for more participants for the MRITS. If you know someone who would like to participate, please direct them to our website: http://dhmh.maryland.gov/flusurvey. A mobile version of the site and other improvements are on the way.

DHMH LABORATORIES ADMINISTRATION REPORTS

The DHMH Laboratories Administration reported a total of 15 PCR tests for influenza performed during week 41. None of those were positive.

During the 2009-10 influenza season, the DHMH Labs Administration reported over 1,900 positive PCR tests for influenza, with 99% of them being the H1N1 pandemic strain. At one point last season, the lab performed over 1,000 tests in one week, and over half of those tests were positive.

For more information on the valuable work done by the DHMH Laboratories Administration, visit their website at http://dhmh.maryland.gov/labs.

EIP INFLUENZA HOSPITALIZATION SURVEILLANCE

During week 41, two hospitalizations associated with influenza were reported to the Emerging Infections Program (EIP). One person hospitalized was in the 25-49 age range, while the other was over the age of 65. To be a confirmed hospitalization associated with influenza, the person must be hospitalized and have a positive influenza test of any kind (rapid test, PCR, culture).

This week last year, a total of 148 hospitalizations were reported. That same season, over 1,400 hospitalizations associated with influenza were reported to EIP.

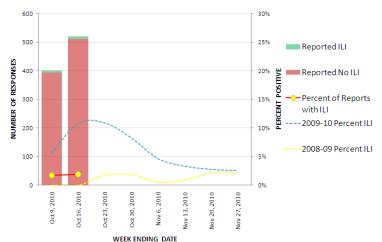


Figure 3. Number of responses and proportion reporting ILI to the MRITS by week, 2010-11 influenza season.

Influenza Type	Number (%)
TYPE A	0
H1 (Seasonal and Pandemic)	1
Н3	0
Unsubtyped	0
ТҮРЕ В	0
TOTAL	1

Table 1. Number of respiratory samples positive for influenza by PCR reported by the DHMH Labs Administration, 2010-11 influenza season

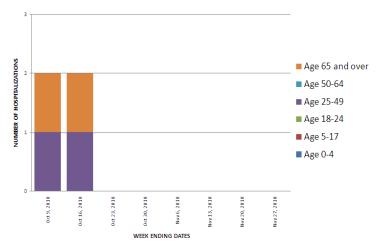


Figure 4. Number of hospitalizations associated with influenza, by age group and week, reported to the Emerging Infections Program, 2010-11 influenza season

DID YOU KNOW?

Flu seasons are unpredictable and can be severe. Over a period of 30 years, between 1976 and 2006, estimates of fluassociated deaths range from a low of about 3,000 to a high of about 49,000 people. During 2009-2010, a new and very different flu virus (called 2009 H1N1) spread worldwide causing the first flu pandemic in more than 40 years. It is estimated that the 2009 H1N1 pandemic resulted in more than 12,000 flu-related deaths in the U.S. In contrast to seasonal flu, nearly 90 percent of the deaths occurred among people younger than 65 years of age.

REPORTS OF OUTBREAKS IN INSTITUTIONAL SETTINGS

No outbreaks of influenza, influenza-like illness, or pneumonia were reported to DHMH during week 41. Last season, a total of 208 outbreaks of respiratory illness were reported between week 40 of 2009 and week 20 of 2010. Of those, 33 were confirmed as influenza outbreaks. Institutional settings include schools, hospitals, colleges and universities, and long-term care locations. An outbreak of ILI is re-classified as an outbreak of influenza if there is laboratory evidence of influenza virus present in the samples collected from case-patients in the outbreak.

EMERGENCY DEPARTMENT ILI REPORTS (ESSENCE)

During week 41, a total of 42,438 visits to emergency departments for all reasons were reported to the Office of Preparedness and Response through the ESSENCE system. Of those visits, 467 (1.1%) were for influenza-like illness. This is about the same proportion reported at this time during the 2008-09 influenza season, and much lower than the 8.8% reported at this time last season (2009-10). For more information on ESSENCE, please visit the Office of Preparedness and Response's web site at: http://bioterrorism.dhmh.state.md.us.

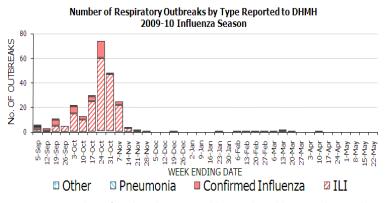


Figure 5. Number of outbreaks reported by week and by type during the 2009-10 influenza season. There have been no outbreaks of respiratory disease reported, 2010-11 influenza season.

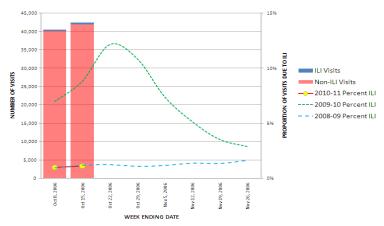


Figure 6. Number and proportion of visits to emergency departments for ILI by week reported through ESSENCE, 2010-11 influenza season.

GOOGLE FLU TRENDS

According to Google, influenza activity in Maryland is currently "LOW". What does this mean? From the Google Flu Trends Website: "We have found a close relationship between how many people search for flurelated topics and how many people actually have flu symptoms. Of course, not every person who searches for 'flu' is actually sick, but a pattern emerges when all the flu-related search queries are added together. We compared our query counts with traditional flu surveillance systems and found that many search queries tend to be popular exactly when flu season is happening. By counting how often we see these search queries, we can estimate how much flu is circulating in different countries and regions around the world."

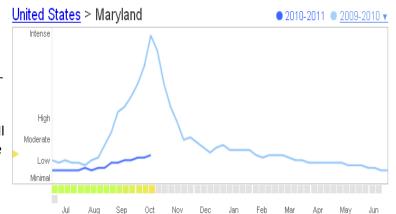


Figure 7 – According to Google Flu Trends, influenza activity in Maryland is currently "low". At this time last year, during the 2009 H1N1 influenza pandemic, influenza activity in Maryland was "high" to "intense".

DID YOU KNOW?

Some people should not be vaccinated against the flu without first consulting a physician. They include people who have a severe allergy to chicken eggs, people who have had a severe reaction to an influenza vaccination in the past, people who developed Guillian-Barré syndrome (GBS) within 6 weeks of getting an influenza vaccine previously, children younger than 6 months of age (influenza vaccine is not approved for use in this age group), and people who have a moderate or severe illness with a fever should wait to get vaccinated until their symptoms lessen.

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ALL THE INFORMATION INCLUDED IN THIS REPORT IS PROVISIONAL AND SUBJECT TO CHANGE AS MORE DATA ARE RECEIVED FROM SURVEILLANCE SOURCES.

THE INFORMATION INCLUDED IN THIS REPORT IS NOT INTENDED TO BE USED FOR INDIVIDUAL DIAGNOSES.

ONLINE VERSION OF THIS REPORT AND PAST SEASONS' REPORTS MAY BE DOWNLOADED AT:

DHMH.MARYLAND.GOV/FLUWATCH

FLU SURVEILLANCE IN NEIGHBORING STATES:

DELAWARE-

HTTP://BIT.LY/9Zkp3

DC-

http://tinyurl.com/yj7br9e

PENNSYLVANIA-

http://tinyurl.com/37323xn

VIRGINIA-

http://tinyurl.com/kmnaeu

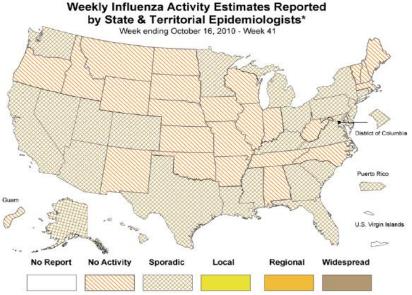
WEST VIRGINIA-

http://tinyurl.com/2u53nuc

CDC NATIONAL INFLUENZA SURVEILLANCE REPORT (http://cdc.gov/flu/weekly)

During week 41 (October 10-16, 2010), influenza activity remained low in the United States.

- Ninety-two (3.6%) specimens tested by U.S. World Health
 Organization (WHO) and National Respiratory and Enteric Virus
 Surveillance System (NREVSS) collaborating laboratories and reported
 to CDC/Influenza Division were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- No influenza-associated pediatric deaths were reported.
- The proportion of outpatient visits for influenza-like illness (ILI) was below the national baseline. All 10 regions reported ILI below regionspecific baseline levels and all 49 states with sufficient data experienced minimal ILI activity.
- Geographic spread of influenza in the District of Columbia, Puerto Rico, and 24 states was assessed as sporadic, Guam and 26 states reported no influenza activity and the U.S. Virgin Islands did not report.



Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2010-11 Season

